

CDK2

Reactivity: Human Mouse Rat

Tested applications: WB ICC IP

Recommended Dilution: WB 1:500 - 1:2000 ICC 1:50 - 1:100 IP 1:20 - 1:50

Calculated MW: 34kDa

Observed MW: Refer to Figures

Immunogen:

A synthetic peptide of human CDK2

Storage Buffer:

Store at -20. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

Concentration:

df

Synonym:

CDK2; Cell division protein kinase 2; p33(CDK2); cyclin dependent kinase 2; p33 protein kinase

Catalog #: A2439

Antibody Type:

Polyclonal Antibody

Species: Rabbit

Gene ID: 1017

Isotype: IgG

Swiss Prot: P24941

Purity: Affinity purification

For research use only.

Background:

Cyclin-dependent kinase 2 (p33CDK2) is an important component of the cell cycle machinery. Like p34cdc2, kinase activity is regulated by phosphorylation state as well as association with a cyclin subunit and a CDK inhibitor. Inhibitory phosphorylation occurs on Thr14 and Tyr15 (1). Inhibition of CDK2-cyclin complexes can also be attributed to association with p27 Kip1 and p21 Waf1/Cip1 (2). Activation of CDK2 complexes requires dephosphorylation of Thr14 and Tyr15 by cdc25 phosphatase and phosphorylation of Thr160 (3), which is mediated by CAK, a complex of CDK7 and cyclin H (4). CDK2/cyclin E kinase activity is important for the G1 to S transition and phosphorylation of the Rb protein. During S-phase, active CDK2/cyclin A complexes predominate and phosphorylate E2F and the active CDK2 complex persists in the nucleus throughout G2 (5).

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